

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

UNILOC USA, INC.,
UNILOC LUXEMBOURG, S.A., and
UNILOC 2017 LLC

Plaintiff,

v.

SAMSUNG ELECTRONICS AMERICA,
INC. and SAMSUNG ELECTRONICS CO.
LTD.,

Defendants.

Case No. 2:18-cv-0041-JRG-RSP

**CLAIM CONSTRUCTION
MEMORANDUM AND ORDER**

On March 20, 2019, the Court held an oral hearing to determine the proper construction of the disputed claim terms in the U.S. Patent No. 7,020,106 (the “’106 Patent”). The Court has considered the parties’ claim construction briefing (Dkt. Nos. 71, 77, and 81) and arguments. Based on the intrinsic and extrinsic evidence, the Court construes the disputed terms in this Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831 (2015).

BACKGROUND

Uniloc USA, Inc., Uniloc Luxembourg S.A. and Uniloc 2017 LLC (collectively “Uniloc”) have asserted the ’106 Patent in two actions against (1) Samsung Electronics America, Inc. and Samsung Electronics Co. Ltd. (collectively “Samsung”) and (2) Huawei Device USA, Inc. and Huawei Device Co., Ltd. (collectively “Huawei”) (all defendants collectively “Defendants”).¹ The claims at issue include independent claim 15 and dependent claims 16 and 17. After the briefing and oral hearing, a Stipulation of Dismissal Without Prejudice was issued in the *Uniloc v Huawei* action, Case No. 2:18-cv-00073-JRG-RSP, Dkt. No. 58.

The ’106 Patent relates generally to a radio communication system that provides communications between a base station and a mobile station. The Abstract of the ’106 Patent recites:

A radio communication system a primary station and a secondary station operating according to two (or more) two-way communication modes. An uplink and/or a downlink communication channel is present for the first mode, but only one of an uplink and a downlink channel is present for the second mode. Modifications to the protocols of the first and second modes enable the traffic for an absent communication channel of one mode to be carried by the corresponding channel of the other mode.

Id. at Abstract. The ’106 Patent illustrates an embodiment of communication between a base station 100 and a mobile station 110 in Figure 1.

¹ Claim construction was consolidated in the two actions.

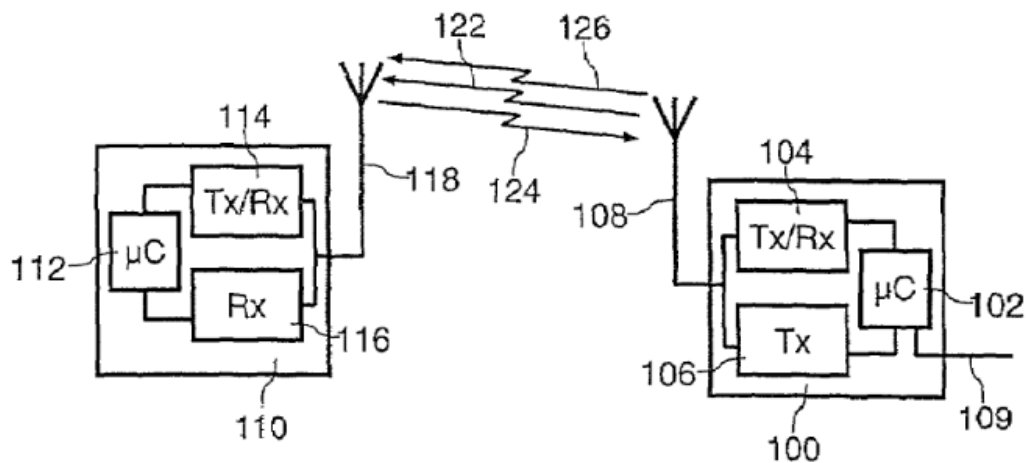


FIG. 1

'106 Patent Figure 1. The base station 100 includes a transceiver 104, and the mobile station 110 includes a transceiver 114. The two transceivers communicate according to a first mode via a first mode downlink channel 122 and a first mode uplink channel 124. *Id.* at 3:33-64. Additional communications between the base station 100 and mobile station 110 may occur in a second mode by use of transmitter 106 in the base station 100 and receiver 116 in the mobile station 110. The second mode communications occur via the downlink channel 126. *Id.* at 3:64-4:2. The specification describes that by providing one-way communications only in the second mode, significant costs, weight and power savings may be achieved. *Id.* at 4:20-28. In the example given, high-speed communication may be achieved with the second mode (one-way communication) while not providing the corresponding high-speed hardware for the second mode for communication in the opposite direction. *Id.* at 4:20-49.

Claim is the only independent claim asserted. Claim 15 recites

15. A communication station for communication with a further station, said communication station comprising:
a first transceiver configured to at least one of transmit first information over a first

communication link in a first mode, and receive second information over a second communication link in said first mode;
at least one of a transmitter and receiver configured to at least one of transmit and receive third information over a third communication link in a second mode;
wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode, wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link.

LEGAL PRINCIPLES

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

“The claim construction inquiry. . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). A term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the

patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court recently explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary fact finding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

A. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Solutions*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

² Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 ("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope."). "Where an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

B. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)³

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 2124. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 2130. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Id.* at 2130 n.10. "[I]ndefiniteness is a question of law and in effect part of claim construction." *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

In the context of a claim governed by 35 U.S.C. § 112, ¶ 6, the claim is invalid as indefinite if the claim fails to disclose adequate corresponding structure to perform the claimed functions.

³ Because the application resulting in the '106 Patent was filed before September 16, 2012, the effective date of the AIA, the Court refers to the pre-AIA version of § 112.

Williamson, 792 F.3d at 1351–52. The disclosure is inadequate when one of ordinary skill in the art “would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim.” *Id.* at 1352.

AGREED TERMS

In the briefing, the parties agreed to the following construction:

Term	Agreed Construction
“a converter configured to convert mode one data” (claim 16)	Plain meaning

Dkt. No. 71 at 4; Dkt. No. 77 at 15, n.9.

DISPUTED TERMS

1. “at least one of a transmitter and receiver configured to at least one of transmit and receive” (claim 15)

Uniloc’s Proposal	Defendants’ Proposal
ordinary meaning	at least one transmitter configured to transmit or at least one receiver configured to receive (but not both)

The parties dispute whether the claims are limited to a station that has at least one transmitter or at least one receiver, but not both a transmitter and a receiver.

Positions of the Parties

Uniloc contends that “*at least one* of a transmitter and receiver” would be broad enough to include an embodiment that encompassed both a transmitter and a receiver. Uniloc contends that if the inventors had desired to limit the claim, they would have written “*either* a transmitter or a receiver.” Uniloc contends that nothing in the record limits the ordinary meaning. (Dkt. No. 71 at 2).

Defendants contend that the dispute is whether this phrase should be construed to cover (i) at least one transmitter *or* at least one receiver (*but not both*), as Defendants contend, or (ii) at least one transmitter *or* at least one receiver *or both a transmitter and a receiver*. Defendants contend that the specification, including both the stated objects of the invention and statements of what the inventors described as “the present invention,” expressly requires that this phrase be construed as proposed by Defendants. (Dkt. No. 77 at 5-6).

Defendants contend that Figure 1 depicts two communication stations of the purported invention:

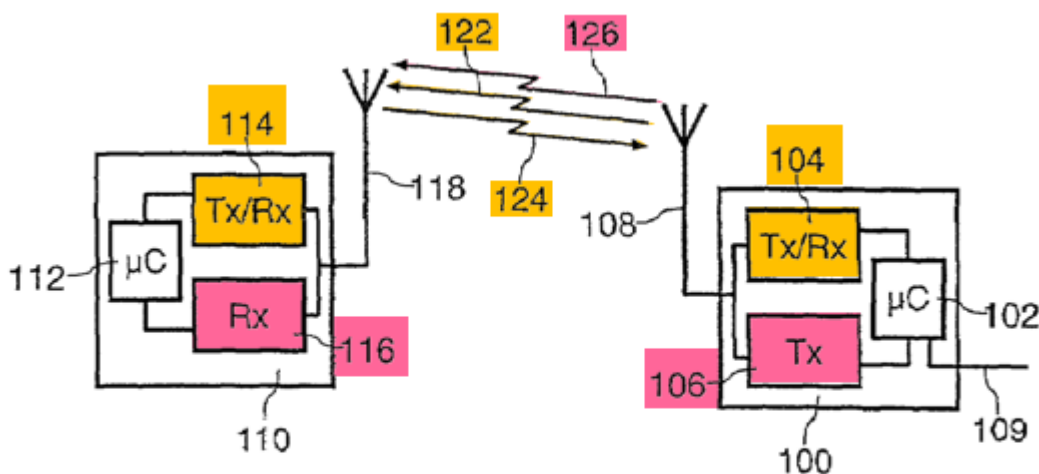


FIG. 1

(*Id.* at 6 (depicting Figure 1 with color added)). Defendants contend that each station has a transceiver (114, 104 – shown in orange) for communicating in a first mode and either a receiver (116 – shown in pink) or a transmitter (106 – also shown in pink) for communicating in a second mode. (*Id.* (citing ’106 Patent at 3:33-59)). Defendants contend that neither station has *both* a receiver *and* a transmitter (in addition to a transceiver (114 and 104)), which is consistent with the “object of the present invention [which] is to provide a more economical multi-mode system.” (*Id.*

(citing '106 Patent 2:11-12)). Defendants point to the specification statements: “[t]he provision of at least two complete transceiver architectures [i.e., a transceiver and both a receiver and a transmitter] in a wireless terminal makes such terminals relatively expensive” ('106 Patent 1:65-67) and “[h]ence, the first mode operates over a bi-directional connection while the second mode operates over a downlink-only connection.” (*Id.* (citing '106 Patent 3:67-4:2)). Defendants contend that each of the embodiments disclosed in the specification includes stations with a transceiver and *either* a transmitter *or* a receiver, ***but not both***. Defendants point to the passage:

[i]n a first embodiment of the present invention the first mode is UMTS TDD while the second mode is HIPERLAN/2. This embodiment provides a high speed data link between BS 100 and MS 110 ***while avoiding the need for a HIPERLAN/2 transmitter in the MS 110***. Since such a transmitter is required to be highly linear it is inherently inefficient, and therefore potentially expensive and power-hungry. ***Its omission from the MS 110 therefore results in a significant cost, weight and power savings.***

(*Id.* at 7 (quoting '106 Patent 4:20-28 (emphasis added))). Defendants point to other passages. (*Id.* (quoting '106 Patent 7:46-50 (“This [second] embodiment, in common with the first embodiment, provides a high-speed data link between BS 100 and MS 110 while avoiding the need for a HIPERLAN/2 transmitter in the MS 110.”); 8:11-16 (“In a third embodiment of the present invention the first mode is Bluetooth while the second mode is HIPERLAN/2. This embodiment, in common with the first and second embodiments, provides a high-speed data link between BS 100 and MS 110 while avoiding the need for a HIPERLAN/2 transmitter in the MS 110.”); 9:5-10 (“In [the fourth] embodiment there are two, or more, distinct frequency bands available. Within one band, TDD mode is deployed, capable of operating in both uplink and downlink. Within the other bands, FDD mode is deployed, in the downlink only. All uplink transmission takes place within the TDD band.”))).

Defendants further point to the following passage: “[t]he present invention is based upon the recognition, not present in the prior art, that in a multi-mode terminal where each mode would be bi-directional if operated in a single mode terminal, **it is not necessary for all the modes to have a bi-directional link.**” (*Id.* (quoting ’106 Patent 2:66-3:3) (emphasis added)). Defendants further note that the Abstract also states that “**only one** of an uplink and a downlink channel is present for the second mode.” (*Id.* (quoting ’106 Patent Abstract)).

Defendants contend that Uniloc’s construction, which encompasses **both a transmitter and a receiver**, directly contradicts this intrinsic evidence, including the stated object of the invention and what the inventor described as “the present invention.” Further, Uniloc contends that the object of the invention is expressly stated in the specification as reducing the cost of the communication station by providing only one transceiver along with **either** a transmitter **or** receiver (**but not both**). (*Id.* at 8 (citing (’106 Patent at 1:65-67, Abstract))). Defendants contend that if the term is construed as proposed by Uniloc such that the communication station can have a transceiver and both a transmitter and receiver, the entire goal of the invention would be eviscerated. (*Id.*)

Furthermore, Defendants contend that any embodiment having **both** a transmitter and a receiver would be inoperable because a communication station sending and receiving information with a further station requires at least two communication links (e.g., an uplink and a downlink) instead of one communication link. (*Id.* at 8-9). Defendants allege that if the inventors had intended the claim to cover “both a transmitter and a receiver,” they would have written “at least one of a transmitter and receiver configured to at least one of transmit and receive third information over **at least one of** a third communication link **and fourth communication link** in a second mode.” Instead, they only provided one communication link and, in doing, so limited the scope of the

claim to “at least one transmitter configured to transmit or at least one receiver configured to receive (but not both),” consistent with the stated object of the invention.

In reply, Uniloc contends that “at least one of A and B” uses language that explicitly includes an embodiment with both A and B. As to Defendants’ argument that the specification does not explicitly describe an “A and B” embodiment, Uniloc contends that Defendants are reading limitations from an embodiment into the claims. (Dkt. No. 81 at 4-5).

Uniloc contends that Defendants argue that because the embodiment with both a transmitter and receiver would be more expensive to assemble than one with just one of those, the “stated objective” of the invention would not be realized. Uniloc contends that reducing expense was not the only stated objective as another objective of the invention is being able to “handle the required asymmetric traffic without consuming excessive resources.” (*Id.* at 5 (quoting ’160 Patent 9:56-59)). Uniloc states that a communication station with a receiver for the second mode might also include a transmitter to be alternatively used for that mode if “a requirement emerges for predominantly high rate uplink asymmetry.” (*Id.* (citing ’106 Patent 9:48-50)). Uniloc states that even as to reducing expense, there can be situations where having a choice between a transmitter and receiver produces power savings. (*Id.* (citing ’106 Patent 4:11-17)).

As to Defendants’ argument that a station with both a transmitter and a receiver would require a fourth link as well as a third, Uniloc states that even if the third link is unidirectional, and thus not capable of being used by both a transmitter and receiver simultaneously, the station can still contain a transmitter (configured to transmit) and a receiver (configured to receive), although it would not do both simultaneously. (*Id.*)

Analysis

The claim term clearly claims “at least one of” a transmitter and a receiver. Such language, on its face, does not exclude the use of both a transmitter to transmit and a receiver to receive in one station (in addition to the earlier claimed transceiver). However, the context of the entire claim and the disclosure of the specification must be considered. At the oral hearing, Uniloc acknowledged that the repeated use of “at least one of” in the specification and claims is provided to draft a broad claim that would provide an overarching claim that encompass either the primary station (base station) 100 or secondary station (mobile station) 110 of Figure 1. (Dkt. No. 84 (hereinafter “Hearing Transcript”) at 26). Thus, the claim language would encompass a station 100 that has a Tx/Rx 104 and a Tx 106 or a station 110 that has a Tx/Rx 114 or a Rx 116.

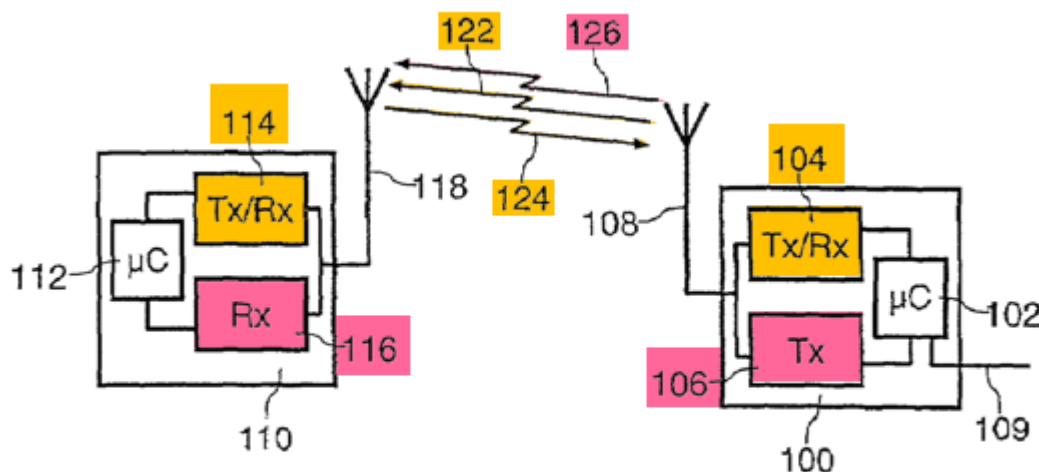


FIG. 1

'106 Patent Figure 1 (color added). It is in the context of the particular claim and the specification that the use of “at least one of” must be considered. In that view, the Court finds that the claim language does not provide for both a transmitter and a receiver as such an interpretation would be counter to what is described as the invention. *See Alloc, Inc. v. ITC*, 342 v. ITC 1361, 1370 (Fed.

Cir. 2003) (“the very character of the invention requires the limitation to be part of every embodiment”). As identified by the passages cited by Defendants, the fundamental purpose of the ’106 Patent and distinction over the prior art was to provide a system that did not have, in the second mode, both a transmitter and a receiver and the emphasis of the disclosure is directed toward this concept of only having one or the other. ’106 Patent Abstract, 1:65-67, 2:11-12, 2:14-23, 2:66-3:3, 3:33-59, 3:67-4:2, 4:20-28, 7:42-50, 8:11-16, 9:5-10. To interpret the “at least one of” limitation in Plaintiff’s manner would run counter to the very character of the invention itself and the entirety of the patent specification. *See Impro II Licensing, S.A.R.L. v T-Mobile USA, Inc., et al.*, 450 F.3d 1350, 1354-55 (Fed. Cir. 2006) (limiting claim element to feature that the specification described as “very important” and “an aspect of the invention”); *UltimatePointer, L.L.C. v Nintendo Co.*, 816 F.3d 816, 821-24 (Fed. Cir. 2016) (limiting claims to “repeated description of the invention” and declining to “divorce the claim language from the repeated” description in the specification). As noted by Defendants, this was the very distinction identified as the problem in the prior art and “[t]he present invention is based upon the recognition, not present in the prior art, that in a multi-mode terminal where each mode would be bi-directional if operated in a single mode terminal, it is not necessary for all the modes to have a bi-directional link.” ’106 Patent 2:66-3:3. It is in this context, and the context of a claim that is drafted to cover either the primary station (base station) or the secondary station (mobile station) that the “at least one of” language that permeates the claim must be considered. *See Rhodia Chimie and Rhodia, Inc. v. PPG Indus. Inc.*, 402 F.3d 1371, 1379 (Fed Cir. 2005) (limiting the claims when the preferred embodiment is described “as the invention itself”). In the context here, the claim language in question provides at least one of the transmitter or at least one of the receiver, but not both a transmitter and receiver.

The Court construes “at least one of a transmitter and receiver configured to at least one of transmit and receive” to mean “at least one transmitter configured to transmit or at least one receiver configured to receive (but not both).”

2. “At Least One of” Terms Asserted to be Indefinite

“at least one of said first communication link and said second communication link is not available” (claim 15)

“at least one of said first information and said second information” (claim 15)

“at least one of said first transceiver and said transmitter” (claim 15)

“said specification information being transmitted to said further station via at least one of said first communication link and said second communication link” (claim 15)

Uniloc’s Proposal	Defendants’ Proposal
Ordinary Meaning	Indefinite

The issue presented to this Court is more easily understood by addressing these terms as two terms:

wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode

and

wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link.

The parties acknowledge that each claim limitation has a separate error as drafted. The parties dispute whether the Court may fix the errors.

Positions of the Parties

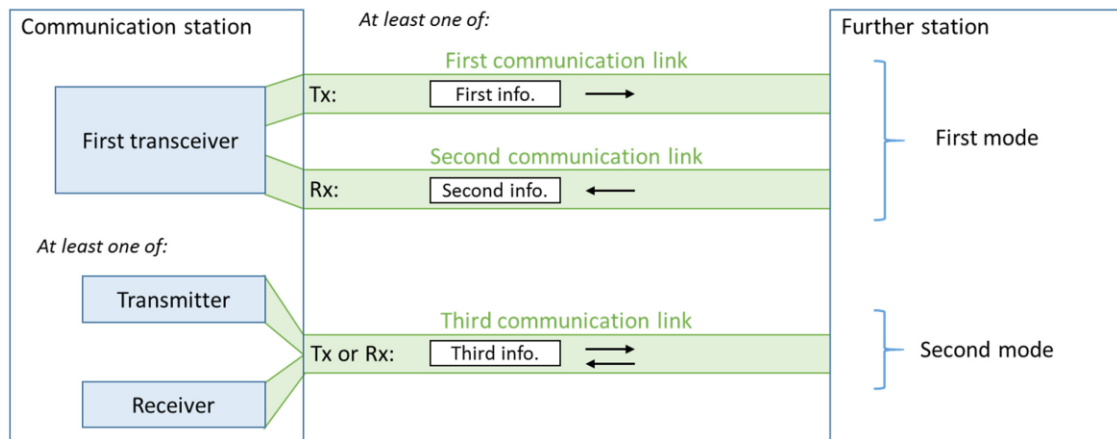
Defendants contend that Uniloc takes the position that “at least one [A] and [B]” throughout claim 15 covers A, B or both A and B. Defendants state that applying such a

construction to the phrases in question renders the claim nonsensical and inoperable, and therefore invalid as indefinite. (Dkt. No. 77 at 4-5).

1. The phrases “at least one of said first communication link and said second communication link is not available” and “at least one of said first information and said second information”

Defendants provide a visual representation of the first two elements of the claim:

a first transceiver configured to at least one of transmit first information over a first communication link in a first mode, and receive second information over a second communication link in said first mode;
at least one of a transmitter and receiver configured to at least one of transmit and receive third information over a third communication link in a second mode . . .



Defendants contend that as shown, the “first information,” if present, is transmitted by the communication station’s transceiver. Further, the Defendants contend that the “second information,” if present, is received by the communication station’s transceiver in the first mode. Defendants state that the “third information” is either transmitted or received depending on the choice of transmitter or receiver for the second mode. Dkt. No. 77 at 10-11.

Defendants assert that the claim has an error in the wherein clause in that the use of “at least one” could result in requiring communication from the communication station to be made

to the communication station itself by the use of “communicated to” as highlighted in the next claim element:

wherein when *at least one of* said first communication link and said second communication link is not available, then *at least one of* said first information and said second information is **communicated to** said communication station via said third communication link in said second mode.

Specifically, Defendants state that if the “first communication link . . . is not available,” then the “first information” (which, as indicated above, is transmitted over the first communication link) would need to be “communicated *to said communication station* via said third communication link in said second mode.” Defendants state that when the “first communication link . . . is not available,” the claim would require “[a] *communication station for communication* . . . comprising: a first transceiver configured to . . . transmit first information . . . *to said communication station* via said third communication link . . .” Defendants contend it is not possible for the first information to be communicated by the communication station “to said communication station” as the communication station cannot transmit the first information to itself. (Dkt. No. 77 at 11). Defendants contend that Uniloc’s proposed construction of “at least one of” would render the claim nonsensical, inoperable, and indefinite.

Defendants contend that the claim would have to be changed to make sense by rewriting the wherein element as follows:

wherein when ~~at least one of said first communication link and~~ said second communication link is not available, then ~~at least one of said first information and~~ said second information is communicated to said communication station via said third communication link in said second mode,

Defendants contend that, in this instance, the “at least one of [A] and [B]” would have been redrafted to be simply [B]. However, Defendants contend that the inventors chose to include the “first communication link” as an option for being “not available” and the first information as an

option for being “communicated . . . via the third communication link” and therefore it would be improper for the Court to redraft the claims. (Dkt. No. 77 at 12-13 (citing *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”); *Chef Am., Inc. v. Lamb- Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004) (“[C]ourts may not redraft claims, whether to make them operable or to sustain their validity.”); *Innovative Display Techs. LLC v. Hyundai Motor Co.*, 2015 WL 2090651, at *21-23 (E.D. Tex. May 4, 2015) (finding the phrase “more in the width direction” indefinite and rejecting the patent owner’s implicit proposal to revise the claim to read “more in the width direction than the height direction” as “amount[ing] to an impermissible redrafting of the claim”))).

2. The phrases “at least one of said first transceiver and said transmitter is configured for transmitting...” and “said specification information being transmitted to said further station via at least one of said first communication link and said second communication link”

Claim 15 recites (emphasis added):

wherein *at least one* of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via *at least one of* said first communication link and said second communication link.

Defendants contend that the first “at least one of” phrase describes how either the first transceiver or the transmitter transmits “specification information” via the first communication link or via the second communication link. Defendants further assert that claim 15 provides that both the first communication link and the second communication link are utilized by the “first mode” in the transceiver claim element. Defendants contend that if the transmitter is selected for the “specification information,” then the invention cannot work since the claim states that only the transceiver, and not the transmitter, is configured to transmit information over a communication

link in the first mode and the transmitter, on the other hand, can only transmit information over a third communication link in the second mode. (Dkt. No. 77 at 13-14).

With regard to the “at least one of” in the phrase “at least one of said first communication link and said second communication link,” Defendants contend that the “specification information” cannot be transmitted via the second communication link, since the claim states that the second communication link is for “*receiv[ing]* second information” at the communication station. Defendants contend that the second communication link receives information at the communication station, it does not *transmit* anything over “said second communication link.” (Dkt. No. 77 at 14). Defendants contend that Uniloc’s construction of “at least one of” renders the claim indefinite.

Defendants contend that the only way to construe these phrases in order for the claim to make sense, and for the invention to operate properly, would be for the Court to rewrite the claim as follows:

~~wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link.~~

Defendants contend that these two “at least one of [A] and [B]” phrases would need to be construed as simply “A,” which is not a plausible construction and not one intended by the inventors. *Id.*

In reply, Uniloc contends that claim 15 contains an obvious error. (Dkt. No. 81 at 1). Uniloc contends that the use of “communicated to” in the claim should be interpreted to be as indicated by the addition in bold:

wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and

said second information is communicated to **[or from]** said communication station via said third communication link in said second mode...

(*Id.* at 1-2). Uniloc states that when one of the first or second links is not available, then the information that would have been communicated over that link will instead be communicated via the third communication link (“to said communication station,” if it is information sent to the station and “from said communication station,” if it is information sent from the station). Uniloc contends that this is an obvious error in the drafting of the claim, in that the drafter mistakenly left out the bracketed language in the above clause. (*Id.* at 2).

Uniloc states that “first information” is information communicated **from** the station, and “second information” is information communicated **to** the communication station. Uniloc contends that the patent discusses using the second mode (*i.e.*, the mode that uses the third communication link) to communicate information that otherwise would have been communicated via the not-available link of the first mode. Uniloc contends that the claim was obviously intended to embrace an embodiment in which the third link is used to transmit the “first information” from the communication station when the first link is not available. Uniloc states that because “first information” is defined as information communicated **from** the station, it would not be “communicated **to**” the station. (*Id.* at 2 (emphasis added)).

Uniloc states that the United States Supreme Court long ago ruled that a court could properly interpret a patent to correct an obvious error. *I.T.S. Rubber Co. v. Essex Rubber Co.*, 272 U. S. 429 (1926) (“*Essex*”). Uniloc states that the Federal Circuit, more recently, reaffirmed that power, although limiting it to correcting “only *Essex*-type errors.” *Novo Industries, L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1355-57 (Fed. Cir. 2003). *Novo* described those as errors where “(1) the correction is not subject to reasonable debate based on consideration of the claim language and

the specification and (2) the prosecution history does not suggest a different interpretation of the claims.” *Id.* at 1357. Uniloc states that “based on consideration of the claim language and the specification,” the correction is not subject to reasonable debate. (Dkt. No. 81 at 3).

In the briefing (including Uniloc’s Reply Brief), Uniloc never addressed the error in the second “wherein” clause cited above. When asked by the Court about this second error, Uniloc acknowledged that it had not recognized the second error. (Hearing Transcript at 27-28, 32). Uniloc acknowledged that there was in fact another error in the claim. (*Id.* at 52-55). Uniloc proposed fixing that error by the following change:

wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said ~~second~~ third communication link.

(*Id.* at 54-55).

Analysis

The definiteness standard of 35 U.S.C. § 112, ¶ 2 requires that:

[A] patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.

Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2129–30 (2014). The Federal Circuit has made clear the requirements needed for a district court to correct an error:

This case presents the question whether a district court can act to correct an error in a patent by interpretation of the patent where no certificate of correction has been issued. We hold that a district court can do so only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.

Novo Industries, LP v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003). If the claim language might mean several different things and no informed and confident choice is available among the contending definitions, the claim is indefinite. *See Interval Licensing LLC v. AOL Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Nautilus, Inc.*, 134 S.Ct. at 2130, n.8 (2014)).

All parties acknowledge that there is an error in the claim phrase:

wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode,

Specifically, Uniloc contends the claim should be redrafted as:

wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to **[or from]** said communication station via said third communication link in said second mode...

Defendants contend, however, that the claim should be redrafted as:

wherein when ~~at least one of said first communication link and~~ said second communication link is not available, then ~~at least one of said first information and~~ said second information is communicated to said communication station via said third communication link in said second mode,

Uniloc's proposed correction, though short, still leaves some ambiguity in the claim, as it does not explicitly state which of the claimed components is involved in the information being communicated "to" or "from" the communication station. Perhaps a clearer correction, which would conform to the specification, would be to replace "to" with "to said communication station when the communication station includes the receiver and from said communication station when the communication station includes the transmitter." Any of the three possible corrections would conform to the specification and conceivably fix the error, which all parties acknowledge is present in the claim as drafted. The Court finds that the correction is thus subject to reasonable debate as

to how to fix the error. Because the correction is “subject to reasonable debate based on consideration of the claim language and the specification,” the Court cannot provide the correction to the claim. *Novo Industries*, 350 F.3d at 1354. The first wherein clause of the claim, thus, fails the “reasonable certainty” test of *Nautilus*.

The second wherein clause (the last clause of the claim) also creates ambiguity as to what correction should be made. Specifically, the claim recites:

wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link.

The parties agree that the second communication link provides information from the “further station” to the communication station. Thus, recitation of “said specification information being transmitted to said further station via at least one of said first communication link and said second communication link” is clearly an error. All parties agree this is an error. How that error could be corrected though, again, takes different forms. As noted by Defendants, the correction could be:

~~wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link.~~

Alternatively, the claim could also be corrected as proposed, for the first time, by Uniloc at the oral hearing:

wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said ~~second~~ third communication link.

Once again, either correction would conform to the specification and could reasonably be provided to correct the claim. The Court finds that the corrections are thus subject to reasonable debate as to how to fix the error. Because the correction is “subject to reasonable debate based on consideration of the claim language and the specification,” the Court cannot provide the correction. *Novo Industries*, 350 F.3d at 1354. The second wherein clause of the claim, thus, fails the “reasonable certainty” test of *Nautilus*.

The Court finds that the term “wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode” is indefinite.

The Court finds that the term “wherein at least one of said first transceiver and said transmitter is configured for transmitting specification information about a radio interface specification defining said second mode, said specification information being transmitted to said further station via at least one of said first communication link and said second communication link” is indefinite.

3. “not available” (all claims)

Uniloc’s Proposal	Defendants’ Proposal
ordinary meaning	plain meaning, i.e., disconnected, not accessible

At the oral hearing, Uniloc agreed to a construction of “not accessible,” the construction adopted by the Court as indicated below. (Hearing Transcript at 33). However, it was apparent that Uniloc still interpreted the term to mean “available, just not selected for use.” (*Id.* at 33-35). The

Court rejects Uniloc’s position that the meaning of “not available” is a communication link that is available but chosen not to be used.

Positions of the Parties

Uniloc did not address this term in its opening brief.

Defendants point to the full claim language of claim 15: “when at least one of said first communication link and said second communication link is ***not available***, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode.” Defendants contend the meaning of this claim element is clear on its face – the second information is communicated to the communication station via the third communication link in the second mode only when at least one of the first and second communication links are “not available” or, in other words, when those links are “disconnected” or “not accessible.” (Dkt. No. 77 at 16 (citing Dkt. No. 77-1 (Wells Decl.) at ¶¶54-57)).

Defendants contend that it is clear from Uniloc’s infringement contentions that, not only does Uniloc not give the term its ordinary meaning, Uniloc also seeks to remove the term from the claim entirely (and replace the term with its antonym – “available”). Specifically, Defendants contend that under Uniloc’s proposed construction, in a system having both Bluetooth links and a faster WiFi link, the information is switched from one of the Bluetooth links to the WiFi link, ***not*** when one or both of the Bluetooth links are “not available,” but when the WiFi link is ***available***. (*Id.*) Defendants contend that Uniloc proposes to construe this phrase to cover communicating the second information via the third communication link in said second mode even when both the first and second communications links ***are*** available. Defendants contend that Uniloc reads out a key limitation of the claim and rewrites the claim as (underline added and strikethrough removed):

when said third communication link in said second mode is available ~~at least one of said first communication link and said second communication link is not available~~, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode.

(*Id.*)

Defendants also contend that the specification also demonstrates that the term should have the meaning proposed by Defendants, because the specification consistently uses the term “absent” to refer to the “not available” limitation in the claims. (Dkt. No. 77 at 17 (citing ’106 Patent 2:19-26 (“the communication channel comprises at least one of an uplink and a downlink channel for the first mode and one of an uplink and a downlink channel for the second mode, the other channel for the second mode being **absent**, and means are provided for transmitting and receiving data normally routed via an **absent** channel of one mode via a respective channel of the other mode.”); 2:32-39, 46-52, & 59-65 (same))). Defendants also point to the prosecution statement in which the applicant attempted to overcome a prior art rejection by arguing that this “feature provides substantial benefits, such as providing for continued communication when a channel is **not available**, as well as allowing to **eliminate a channel altogether**.” (*Id.* (citing Dkt. No. 77-3 [’106 File History] at UNILOC_SAMSUNG041_0160-61)).

In reply, Uniloc contends that Defendants’ construction misunderstands the nature of the invention. Uniloc contends that the patent describes a communication station which utilizes communication links, i.e., assigned frequencies on which data is transmitted or received in accordance with a mode. Uniloc states that the writer of the operating program decides which frequencies are “available” for uplink transmissions and which are “available” for downlink transmissions while operating in the mode. Uniloc states that where the flow of data is asymmetric at any given time, the program may assign all frequencies in a mode to communication in one

direction and make no frequencies “available” for communication in the other direction. Uniloc states that in the patent “not available” simply means: no frequencies have been assigned to communication in that direction. (Dkt. No. 81 at 6). Uniloc states that “disconnected” and “not accessible” do not relate to the nature of the invention as no plug is being pulled out of the wall; nor is a physical wall created to prevent access. (*Id.*).

As to the prosecution history, Uniloc states that the inventors describe “a channel is not available” as a status that *falls short of* “eliminate[ing] a channel altogether.” By comparison, Defendants’ construction (“disconnected; not accessible”) is akin to “eliminat[ing] a channel altogether.” (*Id.* at 7). As to the specification’s use of “absent,” Uniloc contends this is fully consistent with the situation where no frequencies have been assigned. (*Id.*).

Analysis

The term “not available” is found only in one place in the ’106 Patent, in claim 15. “Not available” is found in the longer claim phrase:

wherein when at least one of said first communication link and said second communication link is not available, then at least one of said first information and said second information is communicated to said communication station via said third communication link in said second mode

’106 Patent, claim 15. Uniloc would have the Court interpret a first link to be “not available” when a user selectively decides to use a third link (for example because the third link is a faster link) even when the first link is available for use. On its face, such an interpretation does not conform to the plain meaning of “not available.” Thus, as noted by Defendants, Uniloc essentially construes “not available” to include available links that a user merely chooses not to use. Further, Uniloc has provided no identification of evidence in the intrinsic record to support an interpretation that “not available” may encompass situations in which the link is available, just not used. At the oral

hearing, when the Court asked Uniloc to identify where the concept of “not available” was described, Uniloc could only point to the “absent” language discussed above by Defendants. (Hearing Transcript at 33-35). Such language does not support Uniloc’s interpretation of including available links within the meaning of “not available,” as pointed out by Defendants. Moreover, such usage of “absent” is directed to the concept of there only being 3 channels (not 4 channels): one mode having both up & down channels (122 and 124 of Figure 1) and one mode only having one channel (126 of Figure 1): the “absent” channel is the second mode which is missing a corresponding paired channel for channel 126. As used in the claim, however, “not available” is with reference to one of the three claimed channels being “not available,” as opposed to the fourth channel.

The concept of using the second mode link to send some first mode information is described at ’106 Patent 4:65-5:15 which begins with “[a]s a further modification, *it is possible* to use a single radio interface in the downlink 122 by sending the signaling required for the UMTS TDD downlink over the HIPERLAN2 downlink 126. ...” (emphasis added). This passage describes that such concept is possible but does not link the concept to “not available.”

In sum, the specification provides no support to interpret “not available” to mean situations where the link is available. The plain meaning of “not available” does not encompass a link that is available, just not selected for use and the Court explicitly rejects Uniloc’s position through the construction provided below. Uniloc’s interpretation of the “ordinary meaning” compels a resolution of the issue presented to the Court and a rejection of Uniloc’s interpretation. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008). To be clear, “not accessible” similarly does not encompass a link that is available but merely chosen or set to not be used.

It is noted that the Court adopts Defendants’ construction without the use of “disconnected.” The Court recognizes that the “connected” concept may imply a physical connection as opposed to the wireless connections described in the patent. Such usage may lead to jury confusion.

The Court construes “not available” to mean “not accessible.”

4. “communication link” (all claims)

Uniloc’s Proposal	Samsung’s Proposal
Ordinary meaning	Plain meaning, i.e., a connection between two stations, e.g., an uplink or a downlink

The parties dispute whether the specification requires links to be uni-directional.

Positions of the Parties

Uniloc contends that Defendants seek to exclude from the ordinary meaning a bi-directional link. Uniloc states that although the specification describes an embodiment with uni-directional links, no language in the patent would preclude implementing the invention with a bi-directional link. (Dkt. No. 81 at 7).

Samsung points to the surrounding language of claim 15: “communication station for communication with a further station” and the communication station includes “a first transceiver configured to at least one of transmit first information over a first *communication link* in a first mode, and receive second information over a second *communication link* in said first mode” and “at least one of a transmitter and receiver configured to at least one of transmit and receive third information over a third *communication link* in a second mode.” Samsung also points to a variety of specification passages: 2:1-3:3 (describing “aspect[s] of the present invention” including communication channels comprising both an uplink channel and a downlink channel for one mode

and only one such link for a second mode); 3:60-4:2 (referring to communication in a first mode over a bi-directional connection having both an uplink and a downlink, as well as a second mode having only an uplink); 5:46-48 (referring to a HIPERLAN/2 download as “communication link 126”). (Dkt. No. 77 at 18-19). Samsung states that, thus, the disclosed “communication links” provide “a connection between two stations” (i.e., between the communication station and the further station) and function either as an “uplink” for transmitting information from the communication station or as a “downlink” for receiving information from the further station. (*Id.* at 19 (citing Dkt. No. 77-1 (Wells Decl.) at ¶¶58-60)).

Analysis:

The specification generally does provide embodiments in which “links” are described as “uplinks” or “downlinks.” However, even a single embodiment is not necessarily enough to read a limitation into the claim from the specification. *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011) (“[E]ven where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words of expressions of manifest exclusion or restriction.”). Moreover, the patent utilizes the term “link” with regard to communication links that are not merely unidirectional. Rather, the specification also uses “link” to describe communication links that are bi-directional. For example, prior art links are described as encompassing “a full bi-directional link.” ’106 Patent 1:57. In this regard, the term “link” in the specification is clearly not limited to a uni-directional link.⁴ Further, the patent states: “The present invention is based upon the recognition, not present in the prior art, that in a multi-mode terminal where each mode would

⁴ At the oral hearing, Samsung contended that such a link would be two uni-directional links. (Hearing Transcript at 40-42). However, the specification does not make such assertion clear. (*See Id.* at 40-43).

be bi-directional if operated in a single mode terminal, it is not necessary for all the modes to have a bi-directional link.” *Id.* at 2:66-3:3. Again, the specification makes clear that a link may be bi-directional. Figures 2 and 4 and the associated passages of the specification also have “communication link 208” which is shown and described as being bi-directional. *Id.* Figures 2 and 4, 5:39, 5:28-51. Similarly, the specification describes “[f]irst a bi-directional UMTS TDD link is initiated with a BS 100, at step 704. *Id.* at 7:13-15. In the context of the specification as a whole, it is clear that a “communication link” is not limited to uni-directional links but may also encompass bi-directional links. Thus, as described in the specification passages above, a “link” may be bi-directional. Having rejected Samsung’s construction of the term, the Court has resolved the dispute presented and finds that no further construction is needed. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“district courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike O2 Micro, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”).

The Court finds that “communication link” has its ordinary meaning.

5. “mode” (all claims)

Uniloc’s Proposal	Samsung’s Proposal
Ordinary meaning	Plain meaning, i.e., a communications mode such as Bluetooth

At the oral hearing, Uniloc agreed to the Court’s preliminary construction of “mode” as being “communication mode.” (*See* Hearing Transcript at 35). Thus, the only issue left for the Court to resolve is Samsung’s inclusion of “Bluetooth.”

Positions of the Parties

Samsung contends that one of ordinary skill in the art understands from the intrinsic evidence that the “first mode” and “second mode” refer to communication modes, such as Bluetooth. (Dkt. No. 77 at 19 (citing Dkt. No. 77-1 (Wells Decl.) at ¶62)). Samsung points to passages of the ’106 Patent that reference various communication modes at 1:54-63 (UMTS TDD, HIPERLAN/2, WLAN, and GSM modes), 4:20-22 (UMTS TDD and HIPERLAN/2 modes), 7:44-46 (DECT and HIPERLAN/2 modes), and 8:11-12 (HIPERLAN/2 and Bluetooth modes) 8:43-45 (UMTS TDD and UMTS FDD modes). (*Id.*). Samsung also notes that claim 2 states “wherein the first mode is one of UMTS TDD, DECT or Bluetooth.”

As to including the Bluetooth example in the construction, Uniloc contends the example does not help define the boundaries of the claim. (Dkt. No. 81 at 7-8). Uniloc contends that the problem of including examples can cause a jury to compare the accused product with the example, rather than with the claim boundaries.

Analysis:

In its most generic sense, “mode” could encompass many concepts. For example, a first mode could be a low power mode and a second mode could be a high-power mode. However, in the full context of the specification, “mode” is clearly and repeatedly used in the context of a communication protocols. ’106 Patent Abstract, 3:13-30, 3:47-54, 4:29-5:15, 5:55-65, 7:50-60, 8:17-27. Examples of these communication modes are described in the various embodiments to include mode pairs of UMTS TDD (first mode) and HIPERLAN/2 (second mode), DECT (first mode) and HIPERLAN/2 (second mode), Bluetooth (first mode) and HIPERLAN/2 (second modes), UMTS TDD (first mode) and UMTS FDD (second mode). ’106 Patent 4:20-21 (First Embodiment), 7:44-46 (Second Embodiment), 8:11-12 (Third Embodiment), 8:44-45 (Fourth

Embodiment). The agreed construction includes the communication mode concept. Samsung’s construction, however, unnecessarily emphasizes the Bluetooth communication mode over other communication modes, in contrast to the clear teaching of the specification. Samsung has provided no support for such emphasis.

The Court construes “mode” to be “communication mode.”

6. “transmitter” / “receiver” / “transceiver” (all claims)

Uniloc’s Proposal	Samsung’s Proposal
Ordinary meaning	<p>Transmitter: Plain meaning, i.e., a component that sends (but does not receive) data over a communication link according to a communication mode</p> <p>Receiver: Plain meaning, i.e., a component that receives (but does not transmit) data over a communication link according to a communication mode</p> <p>Transceiver: Plain meaning, i.e., a component that sends data over a first communication link and receives data over a second communication link according to a communication mode</p>

In the briefing, Uniloc substantially agreed to Samsung’s construction except with regard to the communication link description of the transceiver construction.

Positions of the Parties

Samsung also contends that one of ordinary skill in the art understands that the plain meaning of “transceiver” is “a component that includes a transmitter and a receiver.” (Dkt. No. 77 at 20 (citing Dkt. No. 77-1 (Wells Decl. at ¶ 65)). Samsung states that this is consistent with the claim language which, as discussed above, recites “at least one of a *transmitter* and *receiver* configured to at least one of *transmit* and *receive* third information over a third communication

link in a second mode.” ’106 Patent claim 15. Samsung also notes that claim 15 additionally recites a “*transceiver* configured to at least one of *transmit* first information over a first communication link in a first mode, and *receive* second information over a second communication link in said first mode.” Samsung states that, thus, the claimed transceiver must both transmit and receive. (Dkt. No. 77 at 21).

Samsung contends that its proposed definitions are also consistent with the specification, in particular, Figure 1 and the associated text. (*Id.* (citing ’106 Patent at FIG. 1; 3:34-41, 55-59)). Samsung also states that one of ordinary skill in the art understands that the “Rx” refers to a “receiver,” “Tx” refers to a “transmitter,” and “Tx/Rx” refers to a transceiver. (*Id.* (citing Dkt. No. 77-1 (Wells Decl.) at ¶67)).

Uniloc agrees to the Samsung’s constructions except to the extent the construction would limit “transceiver” to a component that sends and receives data over separate uni-directional communication links. (Dkt. No. 81 at 8). Uniloc contends that a link can be bi-directional.

Analysis:

Samsung’s construction could be interpreted to limit “transceiver” to devices that transmit and receive over separate uni-directional links. As with the “communication link” term above, Samsung merely points to examples in the specification of uni-directional links. Samsung has not pointed to any language of disclaimer or disavowal. Further, as described above with regard to communication link, the patent specification explicitly references the use of bi-directional links. For the same reasons as described above, the Court rejects Samsung’s transceiver construction which is limited to separate uni-directional links.

The Court construes “transmitter” to be “a component that may send (but does not receive) data over a communication link according to a communication mode.”

The Court construes “receiver” to be “a component that may receive (but does not transmit) data over a communication link according to a communication mode.”

The Court construes “transceiver” to be “a component that may send data and receive data over one or more communication links according to a communication mode.”

The Court adopts the constructions above for the disputed and agreed terms of the Asserted Patents. Furthermore, the parties should ensure that all testimony that relates to the terms addressed in this Order is constrained by the Court’s reasoning. However, in the presence of the jury the parties should not expressly or implicitly refer to each other’s claim construction positions and should not expressly refer to any portion of this Order that is not an actual construction adopted by the Court. The references to the claim construction process should be limited to informing the jury of the constructions adopted by the Court.

SIGNED this 15th day of April, 2019.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE